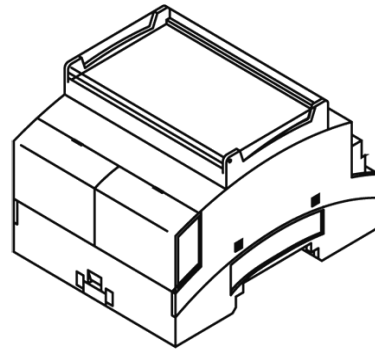
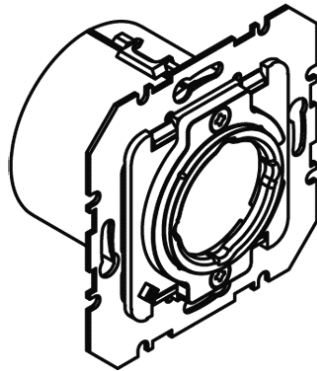


Operating instructions

Wall scanner controls

ES641x, ES642x, ES741x, ES742x



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1 Introduction

About these instructions

These instructions contain important notes and information on operation of the wall scanner controls ES641x, ES642x, ES641x and ES742x.

- Read through the instructions carefully and attentively.
- Keep the instructions in a safe place and pass them on to each subsequent user of the wall scanner controls.

Explanation of the Symbols and Signal Words Used

 WARNING	Indicates risks which could result in fatal or severe personal injuries.
 CAUTION	Indicates risks which could result in fatal or severe personal injuries.
CAUTION	Indicates risks which could result in damage to property.
Note	Denotes information, notes and tips on optimum use of the instructions and the product.

Target group

These instructions are directed at competent personnel entrusted with the servicing, maintenance and disposal of trouble-free operation of the wall scanner controls and who has successfully completed suitable vocational training for these activities or has had the necessary appropriate experience.

OPERTIS Support

If you have any questions extending beyond the information provided in these instructions, please contact

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Up-to-date status of the information

All details on the product, images, dimensions and models correspond to the status at the time the product is delivered. We reserve the right to make changes due to technical progress and the resulting continuous improvement process to which our products are subjected.

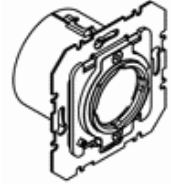
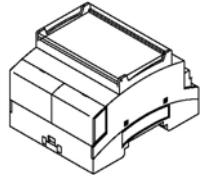
The current version of these instructions and further information is also available on our internet site www.opertis.de.

Dated 07/2013

2 Product Description

Overview

The following wall scanner controls are described in these instructions:

Art. No. / Name	Drawing
ES64xxU... ES74xxU... Wall scanner control (concealed, underplaster (flush-mounted) installation)	
ES64xxT... ES74xxT... Wall scanner control (mounting rail installation)	

Variations

Name	Function	Control
Standard wall scanner control ES641x ES741x	Activation of the internal or external relay for control of peripheral devices by holding an authorised identifier in front of the antenna.	The wall scanner control is controlled by the eLOCK Center management software, see eLOCK system documentation software.
Multi-relay wall scanner control ES642x ES642x	Activation of the internal or external relay for control of peripheral devices by holding an authorised identifier in front of the antenna. The wall scanner control up to 100 additional relays an external PCS system for 4,350 identifiers "taught" directly in the wall scanner control.	
Name	Function	Control
Standard AddDelete wall scanner control ES741xxEL	Activation of the internal or external relay for control of peripheral devices by holding an authorised identifier in front of the antenna.	The wall scanner control is controlled by special programming ITs, see AddDelete operating instructions.

Functional principle

The OPERTIS eLOCK lock system ensures continuous public and commercial building fitout. Special fitting solutions are available for different door types.

The wall scanner controls can be combined with different OPERTIS masking caps and housings and operated with an external power supply. In addition, external antennas can be connected.

Interfaces are available for controlling external relays or peripheral devices and for networking via LAN modules.

The multi-relay wall scanner controls control peripheral devices via a connected PCS system.

Management and programming of the fittings, among other things the issue of access authorisations, takes place using the eLOCK Center management software. Optionally, programming with eLOCK AddDelete is also possible via three programming keys without additional software.

Passive identifiers without their own power supply are available for authorisation at the fittings in the eLOCK lock system in different forms such as keys, key fobs, cards or customer-specific forms. These must be held on the wall scanner antenna for an authorisation check.

Detailed information

Further information on the product is given in Section 8 Product Specifications.

3 Intended Use

Area of use

The wall scanner controls within an eLOCK lock system are designed to control peripheral devices, for example electric door openers, electric locks, motorised bolts, holding magnets, electrical door and gate drives, barrier systems, lifts, mailboxes, etc.

The wall scanner controls are suitable for installation in the protected internal area. The flush-mounted versions are installed in flush-mounted boxes or on the surface with special spacer frames. The mounting rail version is intended for installation, e.g.: on a mounting rail in a switch cabinet.

Condition of the product

Wall scanner controls may only be used if they are in a technically perfect condition.

Independent modifications and changes to the product are not allowed.

Ambient conditions

Use of the wall scanner controls in a particularly polluted environment, e.g. in aggressive gases or in extreme temperatures, is not allowed. If you have any questions, please contact OPERTIS Support.

Residual risk

If used properly and if the maintenance instructions are followed, this product will support your property security.

However, the following residual risks cannot be excluded:

- In the event of failure of the mains power supply there is a risk of locking in or out. In this case the door can only be opened with mechanical aids.
- In the event of failure of the electronics there is a risk of locking in or out. The door can then only be opened with mechanical aids. In this case, contact OPERTIS Support.
- If a wall scanner is used to control access to a fuse box and a fuse is defective there is risk of locking in or out. The door can then only be opened with mechanical aids.
- OPERTIS recommends use of an uninterruptible power supply (UPS) to ensure operation of the wall scanner controls during a power failure.

4 Safety Instructions

The following safety instructions must be read and followed before use! OPERTIS does not accept any liability whatsoever for personal losses or injuries or damage to property caused by failure to note and follow these instructions!



WARNING

Risk of personal injuries and damage to property

There is an increased risk of injuries if the wall scanner control or connection cables are touched while the power supply is switched on (electric shock!). The wall scanner control or connected peripheral device can be irreparably damaged.

Carry out installation and maintenance work only if the power supply is switched off.

Note and observe the VDE Guidelines (VDE-0100)!

CAUTION

Risk of damage to property

Electronic components can be irreparably damaged if touched.

Note and observe the regulations and notes in the DIN EN 61340-5-2 standard!

CAUTION

Unauthorised access after installation

When delivered the wall scanner controls are in construction site mode. Access is possible with any OPERTIS identifier, even if they are not programmed.

Program the authorisations immediately after installation to prevent unauthorised access; see eLOCK system documentation software. Check time and if necessary reset.

5 Use and Operation

Programming fittings and identifiers

Fittings and identifiers are programmed using the eLOCK Center management centre or the eLOCK AddDelete system.

Detailed information on this is given in the eLOCK system documentation software.

Active extension of the fitting opening time

If an authorised identifier is held in front of the wall scanner for longer than the defined fitting opening time, the wall scanner or the connected peripheral device remains activated until the authorised identifier is removed.

Acoustic and visual signals

The acoustic and visual signals of the connected wall scanner antenna depends on the programming. The programmed fittings in the AddDelete system and the fittings programmed using eLOCK Center have a different signalling concept.

Note

The complete visual and acoustic signals are included in the eLOCK system documentation "Signalling Concept" section.

The wall scanner antenna emits acoustic and visual signals for certain system states and events:

Visual signal	Acoustic signal	Meaning
red flashing	-	Wall scanner ready for use.
2x short blue-blue	1x ascending sound sequence	Programming mode on.
blue flashing	-	Programming mode active.
–	1x descending sound sequence	End of programming mode (automatic)
2x short green-green	1x short high-pitch	Wall scanner connection by authorised identifier
2x short red-red	1x long low-pitch	No wall scanner connection, identifier not authorised
2x red-green	1x short high-pitch	Wall scanner connection in construction site mode or permanent release mode, see eLOCK system documentation "Fitting Modes" section.
2x short red-red 4 x yellow	1x long low-pitch+ 4x short low-pitch	System error! Dismantle wall scanner, contact ES Support!

Important information

During communication between a wall scanner antenna and an identifier or the programming equipment (e.g. programming mode) signalling takes place at this wall scanner antenna only. All other connected wall scanner antennas are inactive for this period.

6 Servicing, Cleaning and Maintenance

The servicing, cleaning and maintenance may be carried out by qualified personnel only.

Warranty cover is excluded for damage caused by improper handling.

Intervals

Activity	Interval
Servicing	1 year

Cleaning and maintenance

Cleaning and maintenance of the wall scanner control is not necessary.

Servicing



CAUTION

Risk of locking in or out

Peripheral devices cannot be controlled without a fully functional wall scanner control and antenna.

During the functional test of the wall scanner controls and antennas it is necessary to ensure that the systems controlled by the wall scanner control do not prevent anyone from passing through.

The following functional tests must be performed once a year:

Step	Activity	Result
1	Hold an authorised OPERTIS identifier in front of the connected antenna/s of the wall scanner control.	The connected peripheral device opens for the duration of the defined opening time. The wall scanner antenna signals as specified, see section "Active extension of the fitting opening time".
2	Read fitting info, check time and date, see eLOCK system documentation.	If necessary, reset time and date, see eLOCK system documentation software.

7 Problems and Solutions

Note

Problems which can occur in or due to connected components (e.g. external antennas) and the solutions are described in the respective installation instructions.

Problem	Possible cause	Solution
Identifier is not recognised (no positive or negative acknowledgement).	Identifier is defective.	Replace identifier.
	Wall scanner antenna is defective.	Replace wall scanner control.
	Identification attempt made at wall scanner control without internal wall scanner antenna.	
Identifier is not given access.	Identifier is not programmed or does not have the necessary authorisations.	Program identifier, see eLOCK system documentation software.
	Wall scanner time is incorrect.	Reset time, see eLOCK system documentation.
Peripheral device does not respond.	Wall scanner control relay is defective.	Replace wall scanner control.
	Peripheral device is off-load.	Switch on power supply to the peripheral device.
	Peripheral device is incorrectly connected.	Correct connection.
	Peripheral device is defective.	Replace peripheral device.
	Connection conductors or cables are defective.	Replace connection conductors/cables.
	Mounting rail version: "Fuse" is defective.	Replace "fuse".
Peripheral device remains activated. / Relay remains picked up.	A fitting time profile was removed from the wall scanner during the fitting opening time.	Change state of the fitting (several options): <ul style="list-style-type: none"> ● Use switch key ● Program new fitting time profile ● Perform switch function for online fittings via eLOCK Center.

Problem	Possible cause	Solution
Wall scanner antenna has no ready signal.	Power supply is defective or is not connected.	Ensure power supply.
	Connection cable to the antenna is defective or is not connected.	Ensure connection with antenna.
	Operating voltage not within the allowable range.	Connect the correct power supply.
	Wall scanner control is defective.	Replace wall scanner control.
	Wall scanner antenna is defective.	Replace wall scanner antenna.
	Relay has already picked up.	Wait for relay to drop out.
Mounting rail version: Status LED of the wall scanner control is off.	Power supply is defective or is not connected.	Ensure power supply.
	Operating voltage not within the allowable range.	Connect the correct power supply.
	Wall scanner control is defective.	Replace wall scanner control.
Each identifier is authorised to lock.	Fitting is not programmed ("construction site mode").	Program fitting, see eLOCK system documentation software.

8 Product Specifications

Declaration of conformity

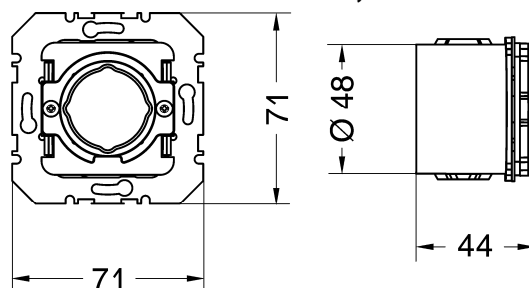
OPERTIS GmbH herewith declares that the Wall Scanner Controls fulfil the basic standards and other relevant specifications of the 1999/5/EG and 2011/65/EU directives and that they are CE compliant.

A copy of the statement of conformity can be ordered from the OPERTIS Support.

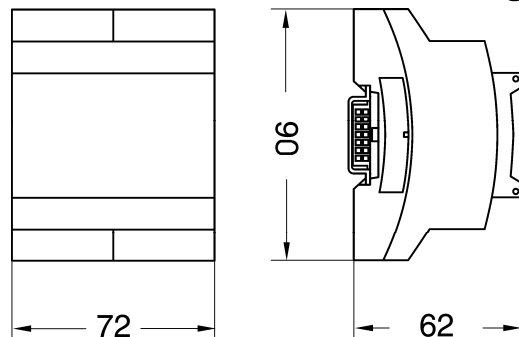
Dimensions

All dimensions are given in mm.

Wall scanner controls, concealed, flush-mounted installation



Wall scanner controls, mounting rail installation



Technical data

Installation environment for concealed, flush-mounted installation

Mounting depth	≥ 44 mm
Installation diameter	≥ 53 mm or standard concealed, flush-type boxes with 60 mm fixing centres
Mounting distance between wall scanner antennas	At least 150 mm in 3D space

Installation environment for mounting rail installation

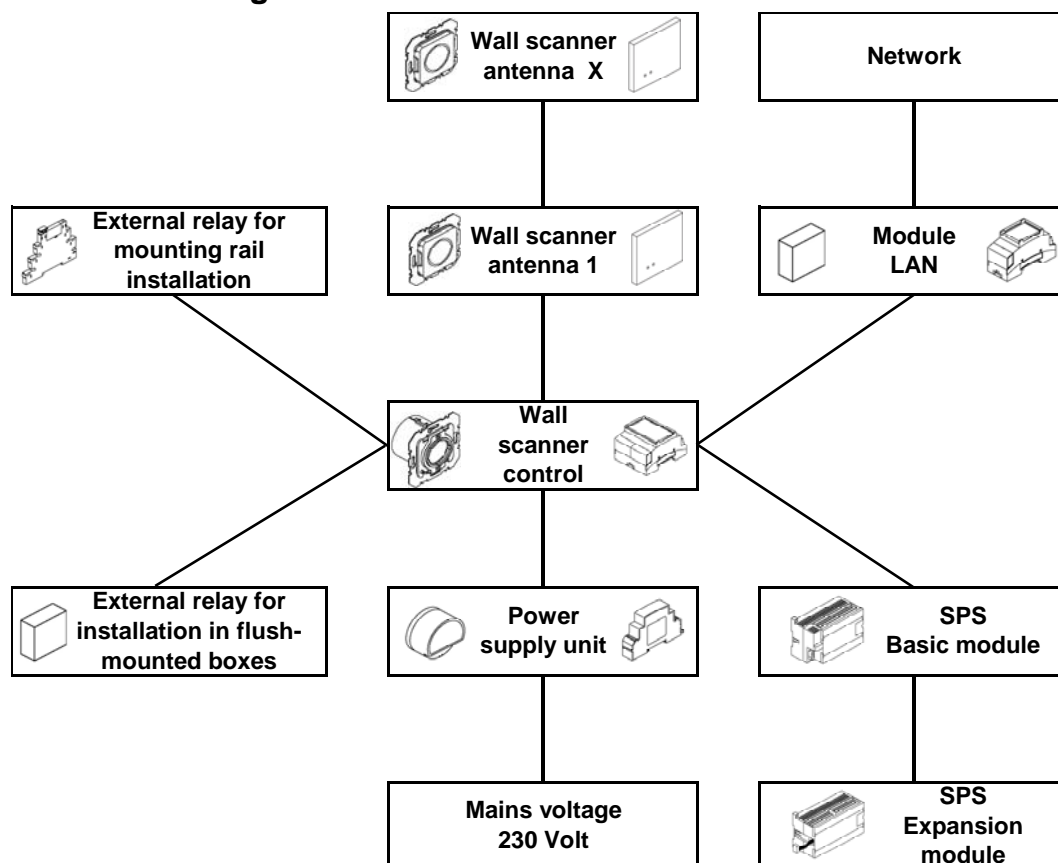
Housing	See "Dimensions" section
Mounting rail	35mm
Mounting distance between wall scanner antennas	At least 150 mm in 3D space

Power supply / connections

Power supply	<p>Automatic recognition:</p> <ul style="list-style-type: none"> ● 12 - 24 V DC non-stabilised +/-10% or ● 24 V AC +/-10% <p>The wall scanner control must be supplied from a power source with limited output according to EN 60950-1:2001.</p>						
External antennas	<ul style="list-style-type: none"> ● A maximum of 6 external antennas can be connected to a wall scanner control without internal antenna. ● A maximum of 5 external antennas can be connected to a wall scanner control with internal antenna. 						
Power supply of the wall scanner antennas	Operation of more than 3 antennas in total via one wall scanner control is only possible with an additional external power supply, 9 V DC.						
Length of the connection cable of external antennas	≤ 300m (series connection)						
Power consumption	<p>Depending on the number of connected antennas:</p> <table> <tr> <td>1 connected antenna:</td> <td>1 W</td> </tr> <tr> <td>2 connected antennas:</td> <td>1.6 W</td> </tr> <tr> <td>3 connected antennas:</td> <td>2.2 W</td> </tr> </table>	1 connected antenna:	1 W	2 connected antennas:	1.6 W	3 connected antennas:	2.2 W
1 connected antenna:	1 W						
2 connected antennas:	1.6 W						
3 connected antennas:	2.2 W						

Interfaces	<ul style="list-style-type: none"> ○ Connection for external antennas ○ Connection for control of a PCS system (multi-relay) ○ Connection for an LAN module ○ Connection for controlling external relays
Current input	max. 230 mA for 12VDC and with 3 connected antennas
Outputs	<ul style="list-style-type: none"> ○ 1 relay output (Photomos, NO make contact) ○ Concealed, flush-mounted version: Control of the external relay ES0532U with two electromechanical changeover contacts ○ Mounting rail version: Control of max. two external ES0531T relays each with one electromechanical changeover contact
Switching capacity	Relay make contact/NO max. 60 V AC/DC / 2.0 A

Connection diagram



Specific data

Operating temperature	-20 °C to +55 °C		
Storage temperature	-40 °C to +85 °C		
Air humidity for operation and storage	max. 95 % non-condensing		
Degree of protection according to EN 60529	IP21		
Memory capacity in standard wall scanner control:	ES6... for ES5000 plus	ES7... for eLOCK	ES7... for eLOCK AddDelete
Identifiers	60,000	80,000	100
Protection zones (membership of a group of fittings)	296	30	-
Events (authorisation attempts)	512	628	-
Memory capacity in multi-relay wall scanner control:	ES6... for ES5000 plus	ES7... for eLOCK	ES7... for eLOCK AddDelete
Identifiers	4,350	4,350	-
Protection zones (membership of a group of fittings)	296	30	-
Events (authorisation attempts)	512	628	-

9 Disposal

Product



Disposal in accordance with WEEE Directive 2012/19/EU:

- Do not dispose of product by throwing it in the local household waste.
- Return product to OPERTIS or dispose of at a municipal collection point for hazardous electrical wastes.



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